UNIVERSITI TEKNOLOGI MARA

POST FIRING REDUCTION METHOD: AN INNOVATION FOR STANDARDIZED RAKU GLAZE EFFECT

ADIBAH BINTI ALI

Thesis submitted in fulfillment
of the requirements for the degree of
Master of Art & Design

Faculty of Art & Design

April 2016

CONFIRMATION BY PANEL OF EXAMINERS

I certify that a Panel of Examiners has met on 23rd October 2015 to conduct the final examination of Adibah Binti Ali on her Masters of Art & Design thesis entitled "Post Firing Reduction Method: An Innovation for Standardized Raku Glaze Effect" in accordance with Universiti Teknologi MARA Act 1976 (Akta 173). The Panel of Examiners recommends that the student be awarded the relevant degree. The Panel of Examiners was as follows:

Norwani Nawawi, PhD
Associate Professor
Faculty of Art & Design
Universiti Teknologi MARA
(Chairman)

Nor Nazida Awang, PhD
Senior Lecturer
Faculty of Art & Design
Universiti Teknologi MARA
(Internal Examiner)

Doll Said Ngah
Senior Researcher
SIRIM Berhad
(External Examiner)

SITI HALIJJAH SHARIFF, PhD
Associate Professor
Dean
Institute of Graduate Studies
Universiti Teknologi MARA
Date : 8th April 2016

AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and the result of my own work, unless indicated or acknowledged as referenced work. This thesis has not been submitted to any academic institution or non-academic institution for any degree or qualification.

I hereby acknowledge that I have been supplied by the Academic Rules and Regulations for post graduate Universiti Teknologi MARA regulating the conduct of my study and research.

Name of Student	:	Adibah Binti Ali
Student ID Number	:	2012354355
Programme	:	Masters of Art & Design
Faculty	:	Art & Design
Thesis Title	:	Post Firing Reduction Method: An Innovation for Standardized Raku Glaze effect
Signature of Student :		 .....
Date	:	April 2016

ABSTRACT

Raku has progressed gloriously over these years influencing many potters through its traditional and conventional firing methods. Raku is significant in a way which involves simplicity, spontaneity that we can say is endless. Raku is an essence of ceramic that presents a laid back firing method that produces variety of unexpected effects that will surprise due to the simplest firing method that the firing it was conducted. It had lead the researcher to modify the firing methods from producing spontaneous glaze effect to obtaining a planned glaze effect, and achieving a standardized one. This research involves a range of ceramic process including Raku kiln, glazing and firing experiments. Intended for this research, a Raku kiln was built to cater glaze firing experiments for small test pieces. Raku conventional reduction methods were innovated to obtain a reduction atmosphere that would be able to alter the glaze to a standardized effect for all test pieces. The main issue of Raku is the random glaze effect produced from it reduction methods. This issue has been made as this research's motivation due to the realized potential of Raku that was suitable for this research. 10 experiments were conducted for this research using 2 Raku kilns to acquire the required glaze effect hence the proper reduction atmosphere that would be the foundation of the glaze effect transformation. The reduction atmosphere was created through an innovative post firing reduction method of inserting combustible material into the kiln and the kiln was sealed while producing smoke. The smoke appearance during reduction process was the main factor that could modify the glaze effect if all the involving factors such as the firing temperature, amount of combustible material used and the reduction temperature atmosphere are a suitable combination. Therefore this research gives us anticipation that through an altered method of post firing reduction, we can achieve a planned standardized effect for Raku glaze.

TABLE OF CONTENTS